

SEQUENCE LISTING

<110> Evans, Glen A.
Jewell, Sally
Ware, Mark

<120> Enhanced Variants of Erythropoietin and
Methods of Use

<130> 66663-066

<150> US 10/291,847
<151> 2002-11-08

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gct gaa aat atc acc aca ggc tgt gca gaa cat tgc tca ctg aac gag 210
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Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg
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Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu
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ttg tcg gag gca gtc ctg cgg ggt caa act tta ctg gta aat tcc agt 354
Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Asn Ser Ser
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cag cct tgg gaa cca tta cag ttg cac gtg gat aag gcg gtt tct ggc 402

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly
 90 95 100

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 105 110 115 120

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 Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu
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 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
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 Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

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50 55 60

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Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
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Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gtg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Val Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg tcg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Ser Pro Asp Ala Ala
115 120 125

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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

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Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Ala Val
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Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Val Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Ser Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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gta gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
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gtc aac ttt tat gcc cgaa aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

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 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
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 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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 Gly Glu Ala Cys Arg *
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 Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Ile Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
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 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
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 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
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 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
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gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
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Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
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Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta agt tcc agt cag tct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

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Gly Glu Ala Cys Arg *
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Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ser Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac att tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Ile Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
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gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cta tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
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Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			

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Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cta tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			

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35 40 45
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50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
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Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
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Gly Glu Ala Cys Arg
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

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gtc aac ttt tat gct tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 14
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<400> 14
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 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
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Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115							120					125			
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130							135					140			
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145							150					155			160
Gly	Glu	Ala	Cys	Arg											
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<400> 15
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 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Ala Leu Glu
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aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
 20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
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caa act tta ctg gta aat tcc agt cag cct agg gaa caa tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Arg Glu Gln Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432

Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480			
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga 498			
Gly Glu Ala Cys Arg *			
165			

<210> 16
<211> 165
<212> PRT
<213> Homo sapiens

<400> 16			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Ala Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Arg Glu Gln Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 17
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 17			
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa 48			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ttc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Phe Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag att att act gta ccg gat ccg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys			
35	40	45	
gtc aac ctt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 18
<211> 165
<212> PRT
<213> Homo sapiens

<400> 18
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Phe Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys
35 40 45
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly		
65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 19

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 19

atg gat atg gcc cgg ccc ggt ctg att tgc gac agc agg gtg cta gaa	48		
Met Asp Met Ala Arg Pro Gly Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	

gaa gtt tgg caa ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac ggc ggc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctt aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 20			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 20			
Met Asp Met Ala Arg Pro Gly Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 21			
<211> 499			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (2)...(499)			

<400> 21
 c atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 49
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 97
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30 -

 gaa gaa tat tgc tca ctg aac gag att att act gta ccg gat tcg aaa 145
 Glu Glu Tyr Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys
 35 40 45

 gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 193
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 241
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 289
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

 cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 337
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 385
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 433
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 481
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 499
 Gly Glu Ala Cys Arg *
 165

<210> 22
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 22
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Glu Glu Tyr Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys
 35 40 45
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 23
 <211> 499
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (2)...(499)

<400> 23
 c atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 49
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 97
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat ccg aaa 145
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys
 35 40 45

 gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 193
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg ccg ggt 241
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 289
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	337		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	385		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	433		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	481		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	499		
Gly Glu Ala Cys Arg *			
165			

<210> 24
<211> 165
<212> PRT
<213> Homo sapiens

<400> 24			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys			
35	40	45	
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 25
<211> 499
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (2) ... (499)

<400> 25

c atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 49
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 97
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tta ctg aac gag aat att act gta ccg gat acg aaa 145
Ala Glu His Cys Leu Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 193
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 241
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 289
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 337
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 385
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 433
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg 481
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 499
Gly Glu Ala Cys Arg *
165

<210> 26

<211> 165

<212> PRT

<213> Homo sapiens

<400> 26

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Leu Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 27

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 27

atg gat atc gtc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Val Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gta gaa gat tgc tca ctg aac gag aat att act gta ccg gat ccg aaa 144
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta aat tcc agt cag tct ggg gaa cga tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Gly Glu Arg Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct gga ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 28				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 28				
Met Asp Ile Val Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Gly Glu Arg Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 29
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 29
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ttt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Phe Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 30
<211> 165
<212> PRT
<213> Homo sapiens

<400> 30
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Phe Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 31
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 31
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cg ggt				240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt agc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Ser Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 32
<211> 165
<212> PRT
<213> Homo sapiens

<400> 32
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu

130	135	140	
Phe Arg Val Tyr Ser Asn	Phe Leu Arg Ser Lys	Leu Lys Leu Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
165			
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<211> 498			
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<221> CDS			
<222> (1) . . . (498)			
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aat gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca aca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Thr Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			

145

150

155

160

ggt gag gct tgt cgc tga
Gly Glu Ala Cys Arg *
165

498

<210> 34
<211> 165
<212> PRT
<213> Homo sapiens

<400> 34
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Thr Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 35
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<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 35
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
aaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Lys Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gtt tgt cgc tga			498
Gly Glu Val Cys Arg *			
165			

<210> 36
<211> 165
<212> PRT
<213> Homo sapiens

<400> 36
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Lys Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100														110	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115														125	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130														140	
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145														160	
Gly	Glu	Val	Cys	Arg											
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<210> 37
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<400> 37																		
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Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu			
1														10	15			
aga	tac	ctg	ctc	gaa	gcg	aaa	gag	gct	gaa	aat	atc	acc	aca	ggc	tgt	96		
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Gly	Cys				
														20	25	30		
gca	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	tcg	aaa	144		
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Ser	Lys			
														35	40	45		
gtc	aac	tta	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192		
Val	Asn	Leu	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val			
														50	55	60		
gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cg	ggt	240		
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly			
														65	70	75	80	
caa	act	tta	ctg	gta	aat	tcc	agt	cag	cct	tgg	gaa	cca	tta	cag	ttg	288		
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu			
														85	90	95		
cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336		
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu			
														100	105	110		
cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcg	gcc	384		
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala			
														115	120	125		
tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432		

Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 38
<211> 165
<212> PRT
<213> Homo sapiens

<400> 38				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys				
35	40	45		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 39
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 39				
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa				48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag att att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg	480		
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 40
<211> 165
<212> PRT
<213> Homo sapiens

<400> 40
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20 25 30
Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly	
65	70	75
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu		80
85	90	95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu		
100	105	110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala		
115	120	125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu		
130	135	140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr		
145	150	155
Gly Glu Ala Cys Arg		160
	165	

<210> 41
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<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 41						
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Met Asp Ile Ala Pro Ser Arg Leu Ile Cys Asp Ser Arg Val Leu Glu						
1	5	10	15			
aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt						96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys						
20	25	30				
gga gaa aat tgc tca ctg aac gag aat att act gta ccg gat acg aaa						144
Gly Glu Asn Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys						
35	40	45				
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg						192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val						
50	55	60				
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt						240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly						
65	70	75	80			
caa act tta ctg gta aat tcc agt cag cct ggg gaa cta tta cag ttg						288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Leu Leu Gln Leu						
85	90	95				
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc						336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu						
100	105	110				

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggg gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 42			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 42			
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys			
20	25	30	
Gly Glu Asn Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Leu Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 43			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1)...(498)			

<400> 43
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Ser Ile Thr Thr Gly Cys
 20 25 30

gaa gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

gtc aac ttt tat gcc cgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

caa act tta ctg gta aat tcc agt cag gct ccg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Arg Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
 145 150 155 160

ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 44
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 44
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
 20 25 30
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Arg Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 45
 <211> 498
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<220>
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 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat gcg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
 35 40 45

 gtc aac tta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag act ggg gaa caa tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Gly Glu Gln Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 46
<211> 165
<212> PRT
<213> Homo sapiens

<400> 46			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys			
35	40	45	
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Gly Glu Gln Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 47
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 47

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctt gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gca gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag tct cgg gaa cga tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Arg Glu Arg Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 48

<211> 165

<212> PRT

<213> Homo sapiens

<400> 48

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Ala Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Arg Glu Arg Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 49

<211> 503

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 49

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30

gta gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65

70

75

80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt ttt ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Phe Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

ggt gag gct tgt cgc tga actct 503
 Gly Glu Ala Cys Arg *
 165

<210> 50
<211> 165
<212> PRT
<213> Homo sapiens

<400> 50
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
 20 25 30
 Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Phe Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 51
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 51
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat gcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
35 40 45

gtc aac ttt tat gcc cgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 52
<211> 165
<212> PRT
<213> Homo sapiens

<400> 52
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
35 40 45
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 53
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 53
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gta gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	65	70	75	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg	85	90	95	288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
cac gtg gat aag acg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	100	105	110	336
His Val Asp Lys Thr Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	115	120	125	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	130	135	140	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg	145	150	155	480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr				
ggt gag gct tgt cgc tga	165			498
Gly Glu Ala Cys Arg *				

<210> 54
<211> 165
<212> PRT
<213> Homo sapiens

<400> 54				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys	20	25	30	
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys	35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	85	90	95	
His Val Asp Lys Thr Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140	
Phe Arg Val Tyr Ser Asn	Phe Leu Arg Gly Lys	Leu Lys Ile Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
	165		
<210> 55			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1) ... (498)			
<400> 55			
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta agt tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt ttt ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Phe Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			

145	150	155	160	
				498
ggt gag gct tgt cgc tga				
Gly Glu Ala Cys Arg *				
165				
<210> 56				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 56				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Phe Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				
<210> 57				
<211> 498				
<212> DNA				
<213> Homo sapiens				
<220>				
<221> CDS				
<222> (1)...(498)				
<400> 57				
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	48
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt				
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		96

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg gaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Glu			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			
<210> 58			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 58			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Glu			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100							105							110	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115							120							125	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130							135							140	
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Phe	Tyr	Thr
145							150							155	
Gly	Glu	Ala	Cys	Arg											
165															

<210> 59
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(498)

<400> 59
 atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg tta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30

gca gaa cat tgc tca ctg aac gag att att act gta ccg gat ccg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys
 35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432

Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 60
<211> 165
<212> PRT
<213> Homo sapiens

<400> 60			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 61
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 61			
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gca aaa gag gct gaa aat atc atc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Ile Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag act tgg gaa caa tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Trp Glu Gln Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ctg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Leu Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg	480		
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 62
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 62
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Ile Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60													
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly
65					70				75			80			
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Thr	Trp	Glu	Gln	Leu	Gln	Leu
					85				90			95			
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
					100				105			110			
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
					115				120			125			
Ser	Ala	Ala	Leu	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
					130				135			140			
Phe	Arg	Val	Tyr	Thr	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Val	Tyr	Thr
					145				150			155			160
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 63
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)....(498)

<400> 63																
atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1			5						10					15		
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt																96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys	
			20				25					30				
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa																144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
			35			40				45						
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg																192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
			50			55			60							
gaa gtt tgg cag gga ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt																240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
			65			70			75			80				
caa act tta ctg gta act tcc agt cag gct cgg gaa cga tta cag ttg																288
Gln	Thr	Leu	Leu	Val	Thr	Ser	Ser	Gln	Ala	Arg	Glu	Arg	Leu	Gln	Leu	
			85			90			95							
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc																336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
			100			105			110							

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att acg gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 64
<211> 165
<212> PRT
<213> Homo sapiens

<400> 64
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Thr Ser Ser Gln Ala Arg Glu Arg Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 65
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 65
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gga gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Gly Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

 cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
 Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 66
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 66
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Gly Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 67
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(498)

<400> 67

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1							5			10				15		

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
 20 25 30

gca	gaa	cat	tgc	tca	ctg	aac	gag	agt	att	act	gta	ccg	gat	gcg	aaa	144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Ser	Ile	Thr	Val	Pro	Asp	Ala	Lys	
35							40						45			

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cgg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
65							70			75			80			

caa act tta ctg gta aat tcc agt cag gct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt ccc tga	498		
Gly Glu Ala Cys Pro *			
165			

<210> 68
<211> 165
<212> PRT
<213> Homo sapiens

<400> 68			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ala Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Pro			
165			

<210> 69
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 69

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac gtc tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg 480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 70

<211> 165

<212> PRT

<213> Homo sapiens

<400> 70

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 71

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) . . . (498)

<400> 71

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65

70

75

80

caa act tta ctg gta agt tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgt act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
 145 150 155 160

ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 72
<211> 165
<212> PRT
<213> Homo sapiens

<400> 72
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 73
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 73
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gaa gaa aat tgc tca ctg aac gag agt att act gta ccg gat acg aaa 144
Glu Glu Asn Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag tct cgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg 480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 74
<211> 165
<212> PRT
<213> Homo sapiens

<400> 74
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Glu Glu Asn Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 75
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 75
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgt tca ctg aac gag aat att act gta ccg gat tcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt				240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 76				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 76				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys				
35	40	45		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140	
Phe Arg Val Tyr Thr Asn	Phe Leu Arg Gly Lys	Leu Lys Leu Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
	165		
<210> 77			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1)...(498)			
<400> 77			
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys			
20	25	30	
gta gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag gct agg gaa caa tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Arg Glu Gln Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca acg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Thr Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg			480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr			

145

150

155

160

ggt gag gct tgt cgc tga
Gly Glu Ala Cys Arg *
165

498

<210> 78
<211> 165
<212> PRT
<213> Homo sapiens

<400> 78
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Arg Glu Gln Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Thr Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 79
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 79
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gga gaa cat tgc tca ctg aac gag act att act gta ccg gat acg aaa			144
Gly Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta act tcc agt cag tct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Thr Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 80
<211> 165
<212> PRT
<213> Homo sapiens

<400> 80
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Gly Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Thr Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu
85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100								105					110		
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115								120					125		
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130								135				140			
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Ile	Tyr	Thr
145								150				155			160
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 81
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 81																	
atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48	
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu		
1								5			10			15			
aga	tac	ctg	ctc	gaa	gca	gct	aaa	gag	gct	gaa	act	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Thr	Ile	Thr	Thr	Gly	Cys		
							20			25			30				
gca	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa		144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys		
							35			40			45				
gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg		192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val		
							50			55			60				
gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cgg	ggt		240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly		
							65			70			75		80		
caa	act	tta	ctg	gta	aat	tcc	agt	cag	tct	tgg	gaa	cca	tta	cag	ttg		288
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Ser	Trp	Glu	Pro	Leu	Gln	Leu		
							85			90			95				
cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc		336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu		
							100			105			110				
cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcg	gcc		384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala		
							115			120			125				
tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg		432

Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg	*			
	165			

<210> 82
<211> 165
<212> PRT
<213> Homo sapiens

<400> 82				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
	165			

<210> 83
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 83				
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa				48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	

aga tac ctg ttc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Phe Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gaa gaa aat tgc tca ctg aac gag agt att act gta ccg gat acg aaa	144		
Glu Glu Asn Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cta tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 84
<211> 165
<212> PRT
<213> Homo sapiens

<400> 84
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Phe Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Glu Glu Asn Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

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<210> 85
<211> 498
<212> DNA
<213> Homo sapiens
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<220>
<221> CDS
<222> (1) ... (498)

<400> 85
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

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aga tac ctg ctc gaa gca aaa gag gct gaa att atc act aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
          20          25          30

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gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat gcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
          35          40          45

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gtc aac cta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
      50          55          60

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aaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cg^g ggt 240
Lys Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta tgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Cys Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 86			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 86			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys			
35	40	45	
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Lys Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Cys Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 87			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1)...(498)			

<400> 87

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30

gca gaa tat tgc tca ctg aac gag act att act gta ccg gat tcg aaa 144
 Ala Glu Tyr Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys
 35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 88
<211> 165
<212> PRT
<213> Homo sapiens

<400> 88
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu Tyr Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 89
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) . . . (498)

<400> 89
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
 20 25 30

 gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat tcg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
 35 40 45

 gtc aac atg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Met Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 90
<211> 165
<212> PRT
<213> Homo sapiens

<400> 90
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Met Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 91
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 91

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtt aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg 480
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 92

<211> 165

<212> PRT

<213> Homo sapiens

<400> 92

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 93

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 93

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga cac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg His Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat tcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat aca				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 94				
<211> 165				
<212> PRT				
<213> Homo sapiens				
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg His Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 95
<211> 498
<212> DNA
<213> Homo sapiens

<220>
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<222> (1) ... (498)

<400> 95
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa aat tgc tca ctg aac gag att att act gta ccg gat acg aaa 144
Ala Glu Asn Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag act tgg gaa caa tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Trp Glu Gln Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 96
<211> 165
<212> PRT
<213> Homo sapiens

<400> 96
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu Asn Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Trp Glu Gln Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 97
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 97
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	65	70	75	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	85	90	95	288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	100	105	110	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	115	120	125	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	130	135	140	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg	145	150	155	480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 98
<211> 165
<212> PRT
<213> Homo sapiens

<400> 98				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys	20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys	35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140	
Phe Arg Val Tyr Ser Asn	Phe Leu Arg Gly Lys	Leu Lys Phe Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
	165		
<210> 99			
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<222> (1)...(498)			
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag aat att act gta cca gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr			

145 150 155 160 498
ggt gag gct tgt cgc tga
Gly Glu Ala Cys Arg *
165

<210> 100
<211> 165
<212> PRT
<213> Homo sapiens

<400> 100
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 101
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 101
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gta gaa cat tgc tca ctg aac gag att att act gta ccg gat ccg aaa			144
Val Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 102
<211> 165
<212> PRT
<213> Homo sapiens

<400> 102
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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20 25 30
Val Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Pro Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 103

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 103

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1															15	

aga	tac	ctg	ctc	gaa	gcf	aaa	gag	gct	gaa	agt	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Ser	Ile	Thr	Thr	Gly	Cys	
															30	

gta	gaa	cat	tgc	tca	ctg	aac	gag	act	att	act	gta	ccg	gat	acg	aaa	144
Val	Glu	His	Cys	Ser	Leu	Asn	Glu	Thr	Ile	Thr	Val	Pro	Asp	Thr	Lys	
															35	
															40	
															45	

gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcf	gtg	192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
															50	
															55	
															60	

gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cgg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
															65	
															70	
															75	
															80	

caa	act	tta	ctg	gta	agt	tcc	agt	cag	cct	tgg	gaa	cca	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Ser	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu	
															85	
															90	
															95	

cac	gtg	gat	aag	gcf	gtt	tct	ggc	ctg	tgc	agc	ttt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Cys	Ser	Phe	Thr	Leu	Leu		
															100	
															105	
															110	

cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcf	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
															115	
															120	
															125	

tca	gca	gcf	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432
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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg	*			
	165			

<210> 104
<211> 165
<212> PRT
<213> Homo sapiens

<400> 104			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys			
20	25	30	
Val Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Cys Ser Phe Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
	165		

<210> 105
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 105			
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa aat tgc tca ctg aac gag att att act gta ccg gat tcg aaa	144		
Ala Glu Asn Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct ggg gaa cta tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Leu Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			
<210> 106			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 106			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu Asn Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			

50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly		
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro	Gly Glu Leu Leu Gln Leu		
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg	Ser Leu Thr Thr Leu Leu		
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile	Ser Pro Pro Asp Ala Ala		
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala	Asp Thr Phe Arg Lys Leu		
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly	Lys Leu Lys Leu Tyr Thr		
145	150	155	160
Gly Glu Ala Cys Arg			
	165		

<210> 107

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 107

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa	48		
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt	96	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys		
20	25	30

gga gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144	
Gly Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys		
35	40	45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val		
50	55	60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu		
85	90	95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu		
100	105	110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 108			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 108			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Gly Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 109		
<211> 498		
<212> DNA		
<213> Homo sapiens		
<220>		
<221> CDS		
<222> (1)...(498)		

<400> 109
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Ser Ile Thr Thr Gly Cys
 20 25 30

 gaa gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc agc ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Ser Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct ggg gaa cta tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Leu Leu Gln Leu
 85 90 95

 cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 110
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 110
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
 20 25 30
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Ser Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Leu Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 111
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(498)

<400> 111
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
 20 25 30

 gga gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Gly Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 112
<211> 165
<212> PRT
<213> Homo sapiens

<400> 112
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30
Gly Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 113
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 113

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ctt tat gcc tgg aaa cja atg gaa gtt gga caa cag gcg gtg 192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta agt tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gtt atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Val Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 114

<211> 165

<212> PRT

<213> Homo sapiens

<400> 114

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Val Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 115

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 115

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30

gta gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta aat tcc agt cag gct ggg gaa cga tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Gly Glu Arg Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 116				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 116				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys				
20	25	30		
Val Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Gly Glu Arg Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 117
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 117
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gga gaa cat tgc tca ctg aac gag act att act gta ccg gat tcg aaa 144
Gly Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac gtt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140 155 160

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 118
<211> 165
<212> PRT
<213> Homo sapiens

<400> 118
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Gly Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 119
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 119
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
gca gaa cat tgc tca ctg aac gag agt att act gta ccg gat tcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys
35 40 45
gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	65	70	75	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	85	90	95	288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	100	105	110	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	115	120	125	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	130	135	140	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	145	150	155	480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 120				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 120				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1 5 10 15				
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20 25 30				
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys				
35 40 45				
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50 55 60				
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65 70 75 80				
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85 90 95				
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100 105 110				
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115 120 125				
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140	
Phe Arg Val Tyr Ala Asn	Phe Leu Arg Gly Lys	Leu Lys Leu Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
	165		
<210> 121			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1) ... (498)			
<400> 121			
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg			480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr			

145	150	155	160	498
ggt gag gct tgt cgc tga				
Gly Glu Ala Cys Arg *				
165				

<210> 122
<211> 165
<212> PRT
<213> Homo sapiens

<400> 122

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 123
<211> 498
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 123

atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa	48		
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct cgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Arg Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccc cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			
<210> 124			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 124			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1 5 10 15			
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20 25 30			
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35 40 45			
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50 55 60			
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65 70 75 80			
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Arg Glu Pro Leu Gln Leu			
85 90 95			

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100							105					110			
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115							120				125				
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130						135				140					
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145						150				155		160			
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 125
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 125																
atg	gat	atc	gcc	tcg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Ser	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1					5					10			15			
aga	tac	ctg	ctc	gaa	gcg	aaa	gag	gct	gaa	agt	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Ser	Ile	Thr	Thr	Gly	Cys	
						20				25			30			
gta	gaa	gat	tgc	tca	ctg	aac	gag	aat	att	act	gtc	ccg	gat	acg	aaa	144
Val	Glu	Asp	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
						35			40			45				
gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
						50			55			60				
gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cgg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
						65			70			75			80	
caa	act	tta	ctg	gta	agt	tcc	agt	cag	cct	tgg	gaa	cca	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Ser	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu	
						85			90			95				
cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
						100			105			110				
cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcg	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
						115			120			125				
tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432

Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 126
<211> 165
<212> PRT
<213> Homo sapiens

<400> 126				
Met Asp Ile Ala Ser Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys				
20	25	30		
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 127
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 127				
atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa				48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
gca gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144		
Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa att tat acg	480		
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 128
<211> 165
<212> PRT
<213> Homo sapiens

<400> 128
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30
Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60													
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly
65					70				75				80		
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu
						85				90			95		
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
						100			105			110			
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
						115			120			125			
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
						130			135			140			
Phe	Arg	Val	Tyr	Pro	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Ile	Tyr	Thr
						145			150			155			160
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 129

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 129

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1								5					10		15	

aga	tac	ctg	ctc	gaa	gca	gag	gct	gaa	aat	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Gly	Cys	
								20			25		30		

gta	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa	144
Val	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
								35			40		45			

gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
								50			55		60			

gaa	gtt	tgg	caa	ggg	ctt	gcc	ctg	ttg	tgc	gag	gca	gtc	ctg	cg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
								65			70		75		80	

caa	act	tta	ctg	gta	act	tcc	agt	cag	cct	tgg	gaa	tca	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Thr	Ser	Ser	Gln	Pro	Trp	Glu	Ser	Leu	Gln	Leu	
								85			90		95			

cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
								100			105		110			

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttgc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 130			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 130			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Val Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Ser Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 131			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1)...(498)			

<400> 131
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gaa gaa tat tgc tca ctg aac gag aat att act gta ccg gat gcg aaa 144
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

 cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 132
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 132
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Glu Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 133
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) . . . (498)

<400> 133
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Ala Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336	
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Leu	Leu			
															110		
cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcg	gcc	384	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala		
															125		
tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu		
															140		
ttt	cgc	gtc	tac	acc	aac	ttc	ttg	cgt	ggc	aaa	ctg	aaa	ttt	tat	acg	480	
Phe	Arg	Val	Tyr	Thr	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Phe	Tyr	Thr		
															160		
ggt	gag	gct	tgt	cgc	tga											498	
Gly	Glu	Ala	Cys	Arg	*												
															165		

<210> 134
<211> 165
<212> PRT
<213> Homo sapiens

<400> 134																	
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu		
1										5			10		15		
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys		
											20		25		30		
Ala	Glu	Asp	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys		
											35		40		45		
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val		
										50		55		60			
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly		
										65		70		75		80	
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu		
										85		90		95			
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Leu	Leu			
										100		105		110			
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala		
										115		120		125			
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu		
										130		135		140			
Phe	Arg	Val	Tyr	Thr	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Phe	Tyr	Thr		
										145		150		155		160	
Gly	Glu	Ala	Cys	Arg													
										165							

<210> 135
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) . . . (498)

<400> 135

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa tat tgc tca ctg aac gag agt att act gta ccg gat tcg aaa 144
Ala Glu Tyr Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta agt tcc agt cag cct ggg gaa caa tta cag ttg 288
Gln Thr Leu Leu Val Ser Ser Gln Pro Gly Glu Gln Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 136

<211> 165

<212> PRT

<213> Homo sapiens

<400> 136

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu Tyr Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Gly Glu Gln Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 137

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 137

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc aag gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Lys Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65

70

75

80

caa act tta ctg gta aat tcc agt cag act tgg gaa cta tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Trp Glu Leu Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 138
<211> 165
<212> PRT
<213> Homo sapiens

<400> 138
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Lys Val Leu Glu
 1 5 10 15
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Thr Trp Glu Leu Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 139
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 139
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gta gaa gat tgc tca ctg aac gag act att act gta ccg gat acg aaa 144
Val Glu Asp Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta act tcc agt cag gct cgg gaa caa tta cag ttg 288
Gln Thr Leu Leu Val Thr Ser Ser Gln Ala Arg Glu Gln Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 140
<211> 165
<212> PRT
<213> Homo sapiens

<400> 140
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Val Glu Asp Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Thr Ser Ser Gln Ala Arg Glu Gln Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 141
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 141
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag agt att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt				240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 142
<211> 165
<212> PRT
<213> Homo sapiens

<400> 142				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140														
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Phe	Tyr	Thr	
145						150				155			160			
Gly	Glu	Ala	Cys	Arg												
																165
<210> 143																
<211> 498																
<212> DNA																
<213> Homo sapiens																
<220>																
<221> CDS																
<222> (1) ... (498)																
<400> 143																
atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1										10			15			
aga	tac	ctg	ctc	gaa	gcg	aaa	gag	gct	gaa	act	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Thr	Ile	Thr	Thr	Gly	Cys	
										25			30			
gca	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa	144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
										40			45			
gtc	aac	ttt	tat	gcc	ccg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcf	gtg	192
Val	Asn	Phe	Tyr	Ala	Arg	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
										55			60			
gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	ccg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
										65			70			
											75			80		
caa	act	tta	ctg	gta	act	tcc	agt	cag	gct	tgg	gaa	cga	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Thr	Ser	Ser	Gln	Ala	Trp	Glu	Arg	Leu	Gln	Leu	
										85			90			95
cac	gtg	gat	aag	gcf	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
										100			105			110
cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcf	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
										115			120			125
tca	gca	gcf	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu	
										130			135			140
ttt	cgc	gtc	tac	ccc	aac	ttc	ttg	cgt	ggc	aaa	ctg	aaa	gtt	tat	acg	480
Phe	Arg	Val	Tyr	Pro	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Val	Tyr	Thr	

145	150	155	160	498
ggt gag gct tgt cgc tga				
Gly Glu Ala Cys Arg *				
165				

<210> 144
<211> 165
<212> PRT
<213> Homo sapiens

<400> 144
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Thr Ser Ser Gln Ala Trp Glu Arg Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 145
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 145
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			
<210> 146			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 146			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100							105							110	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115							120							125	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130							135							140	
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145							150							155	
Gly	Glu	Ala	Cys	Arg											
														165	

<210> 147

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 147

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1															15	

aga	tac	ctg	ctc	gaa	gcg	aaa	gag	gct	gaa	aat	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys	
															20	
															25	
															30	

gta	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa	144
Val	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
															35	
															40	
															45	

gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
															50	
															55	
															60	

gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tcg	gag	gca	gtc	ctg	cag	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Gln	Gly	
															65	
															70	
															75	
															80	

caa	act	tta	ctg	gta	aat	tcc	agt	cag	cct	tgg	gaa	cta	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Asn	Ser	Ser	Gln	Pro	Trp	Glu	Leu	Leu	Gln	Leu	
															85	
															90	
															95	

cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
															100	
															105	
															110	

cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcg	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
															115	
															120	
															125	

tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432
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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480				
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga 498				
Gly Glu Ala Cys Arg *				
165				

<210> 148
<211> 165
<212> PRT
<213> Homo sapiens

<400> 148				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Val Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Gln Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Leu Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 149
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 149				
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag agt att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288		
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 150
<211> 165
<212> PRT
<213> Homo sapiens

<400> 150
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly	
65	70	75
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp	Glu Pro Leu Gln Leu	80
85	90	95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser	Leu Thr Thr Leu Leu	
100	105	110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser	Pro Pro Asp Ala Ala	
115	120	125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp	Thr Phe Arg Lys Leu	
130	135	140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys	Leu Lys Leu Tyr Thr	
145	150	155
Gly Glu Ala Cys Arg		160
	165	

<210> 151

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)....(498)

<400> 151

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg	gtg cta gaa	48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg	Val Leu Glu	
1	5	10
		15

aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc	aca ggc tgt	96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr	Thr Gly Cys	
20	25	30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg	gat gcg aaa	144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro	Asp Ala Lys	
35	40	45

gtc aac gta tat gcc tgg aaa cga atg gaa gtt gga	caa cag gcg gtg	192
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly	Gln Gln Ala Val	
50	55	60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca	gtc ctg cgg ggt	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val	Leu Arg Gly	
65	70	75
		80

caa act tta ctg gta aat tcc agt cag tct tgg gaa	cca tta cag ttg	288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Pro	Leu Gln Leu	
85	90	95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt	acc acg ctg ctc	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr	Thr Leu Leu	
100	105	110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cac act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu His Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 152			
<211> 165			
<212> PRT			
<213> Homo sapiens			
<400> 152			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys			
35	40	45	
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu His Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 153			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1)...(498)			

<400> 153
 atg gat atc gcc ccc ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa cat tgc tca ctg aac gag att att act gta ccg gat acg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta aat tcc agt cag gct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Trp Glu Pro Leu Gln Leu
 85 90 95

 cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac tcc aac ttt ttg cgt ggc aaa ctg aaa ctt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 154
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 154
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ala Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 155
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) . . . (498)

<400> 155
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat tcg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
 35 40 45

 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta att tcc agt cag cct ggg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Gly Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 156
<211> 165
<212> PRT
<213> Homo sapiens

<400> 156
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Gly Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 157
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 157

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac gta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggg gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 158

<211> 165

<212> PRT

<213> Homo sapiens

<400> 158

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Val Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 159

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) . . . (498)

<400> 159

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gaa gaa tat tgc tca ctg aac gag act att act gta ccg gat acg aaa 144
Glu Glu Tyr Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa ccg gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Arg Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg ccg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta att tcc agt cag tct agg gaa cga tta cag ttg				288
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Arg Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 160				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 160				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Glu Glu Tyr Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Arg Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Arg Leu Gln Leu				
85	90	95		
His Val Asp Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 161
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 161 48
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag act att act gta ccg gat acg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccc tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 162
<211> 165
<212> PRT
<213> Homo sapiens

<400> 162
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20 25 30
Ala Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 163
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 163
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gaa gaa cat tgc tca ctg aac gag att att act gta ccg gat acg aaa 144
Glu Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt				240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	65	70	75	80
caa act tta ctg gta act tcc agt cag cct agg gaa caa tta cag ttg				288
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Arg Glu Gln Leu Gln Leu	85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu	130	135	140	
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg				480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr	145	150	155	160
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *	165			

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<210> 164
<211> 165
<212> PRT
<213> Homo sapiens

<400> 164
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20          25          30
Glu Glu His Cys Ser Leu Asn Glu Ile Ile Thr Val Pro Asp Thr Lys
 35          40          45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50          55          60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
 65          70          75          80
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Arg Glu Gln Leu Gln Leu
 85          90          95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100         105         110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115         120         125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu

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130	135	140	
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Gly Glu Ala Cys Arg			
165			
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<220>			
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<222> (1) ... (498)			
<400> 165			
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gta gaa gat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr			

145	150	155	160	498
ggt gag gct tgt cgc tga				
Gly Glu Ala Cys Arg *				
165				

<210> 166
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 166				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Val Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 167
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(498)

<400> 167				
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
aga tac ctg ctc gaa ggc aaa gag gct gaa act atc acc aca ggc tgt				96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys				
20	25	30		

gca aaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Lys His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 168
<211> 165
<212> PRT
<213> Homo sapiens

<400> 168
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30
Ala Lys His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100														110	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115														125	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130														140	
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145														160	
Gly	Glu	Ala	Cys	Arg											
														165	

<210> 169

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 169

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1														15		

aga	tac	ctg	ctc	gaa	gcg	aaa	gag	gct	gaa	aat	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys	
														30		

gca	gaa	tat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa	144
Ala	Glu	Tyr	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
														45		

gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192
Val	Asn	Phe	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
														60		

gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	tgc	gag	gca	gtc	ctg	ctg	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Leu	Gly	
														80		

caa	act	tta	ctg	gta	act	tcc	agt	cag	cct	tgg	gaa	tca	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Thr	Ser	Ser	Gln	Pro	Trp	Glu	Ser	Leu	Gln	Leu	
														95		

cac	gtg	gat	aag	gcg	gtt	tct	ggc	ctg	cgc	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	
														110		

cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tgc	ccg	cct	gac	gcg	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
														125		

tca	gca	gcg	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432
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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg	*			
	165			

<210> 170
<211> 165
<212> PRT
<213> Homo sapiens

<400> 170			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
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Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Leu Gly			
65	70	75	80
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Ser Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
	165		

<210> 171
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<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)....(498)

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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96		
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc cgg aaa cga atg gaa gtt gga caa cag gcg gtg	192		
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
cca act tta ctg gta act tcc agt cag cct tgg gaa cca tta cag ttg	288		
Pro Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 172
<211> 165
<212> PRT
<213> Homo sapiens

<400> 172
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly	
65	70	75
Pro Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu		80
85	90	95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu		
100	105	110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala		
115	120	125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu		
130	135	140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr		
145	150	155
Gly Glu Ala Cys Arg		160
	165	

<210> 173

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 173

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa	48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	
1	5
	10
	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys	
20	25
	30

gca gaa cat tgc tca ctg aac gag act att act gta ccg gat tcg aaa	144
Ala Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys	
35	40
	45

gtc aac cta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	
50	55
	60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	
65	70
	75
	80

caa aat tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg	288
Gln Asn Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	
85	90
	95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	
100	105
	110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aat ctt tat acg 480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Asn Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 174
<211> 165
<212> PRT
<213> Homo sapiens

<400> 174
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Asn Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Asn Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 175
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 175

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa	48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	
1 5 10 15	
aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt	96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys	
20 25 30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat tcg aaa	144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys	
35 40 45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	
50 55 60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly	
65 70 75 80	
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg	288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	
85 90 95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	
100 105 110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	
115 120 125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu	
130 135 140	
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg	480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr	
145 150 155 160	
ggt gag gct tgt cgc tga	498
Gly Glu Ala Cys Arg *	
165	

<210> 176
<211> 165
<212> PRT
<213> Homo sapiens

<400> 176

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	
1 5 10 15	

Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
 35 40 45
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 177
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) ... (498)

<400> 177
 atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30
 gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat gcg aaa 144
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
 35 40 45
 gtc aac cta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 caa act tta ctg gta aat tcc agt cag tct tgg gaa cga tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Arg Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 178
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 178
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
 35 40 45
 Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Arg Leu Gln Leu
 85 90 95
 His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 179
 <211> 498
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 179

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat tcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac atc tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Ile Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggt aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 180

<211> 165

<212> PRT

<213> Homo sapiens

<400> 180

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Ile Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 181

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) . . . (498)

<400> 181

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgt tca ctg aac gag aat att act gta ccg gat gcg aaa 144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys
35 40 45

gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta aat tcc agt cag tct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 182				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 182				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Ala Lys				
35	40	45		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 183
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 183
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gga gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Gly Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 184
<211> 165
<212> PRT
<213> Homo sapiens

<400> 184
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Gly Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 185
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1) ... (498)

<400> 185
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gta gaa aat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Val Glu Asn Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	65	70	75	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
caa act tta ctg gta aat tcc agt cag tct agg gaa cca tta cag ttg	85	90	95	288
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Arg Glu Pro Leu Gln Leu				
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	100	105	110	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	115	120	125	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	130	135	140	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg	145	150	155	480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr				
ggt gag gct tgt cgc tga	165			498
Gly Glu Ala Cys Arg *				

<210> 186
<211> 165
<212> PRT
<213> Homo sapiens

<400> 186				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys	20	25	30	
Val Glu Asn Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys	35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Ser Arg Glu Pro Leu Gln Leu	85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140	
Phe Arg Val Tyr Thr Asn	Phe Leu Arg Gly Lys	Leu Lys Val Tyr Thr	
145	150	155	160
Gly Glu Ala Cys Arg			
	165		
<210> 187			
<211> 498			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> (1) ... (498)			
<400> 187			
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
aga tac ctg ctc gaa gcg aaa gag gct gaa act atc acc aca ggc tgt			96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys			
20	25	30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta agt tcc agt cag cct cgg gaa cga tta cag ttg			288
Gln Thr Leu Leu Val Ser Ser Gln Pro Arg Glu Arg Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccc cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg			480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr			

145

150

155

160

ggt gag gct tgt cgc tga
Gly Glu Ala Cys Arg *
165

498

<210> 188
<211> 165
<212> PRT
<213> Homo sapiens

<400> 188
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Thr Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Arg Glu Arg Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Val Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 189
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 189
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
aga tac ctg ctc gaa ggc aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gaa gaa gat tgc tca ctg aac gag aat att act gta ccg gat ccg aaa			144
Glu Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys			
35	40	45	
gtc aac atg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Met Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag tct agg gaa cta tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Leu Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac acc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Thr Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 190
<211> 165
<212> PRT
<213> Homo sapiens

<400> 190
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Glu Glu Asp Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Pro Lys
35 40 45
Val Asn Met Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Ser Arg Glu Leu Leu Gln Leu
85 90 95

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
100							105							110	
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
115							120							125	
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
130							135							140	
Phe	Arg	Val	Tyr	Thr	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Leu	Tyr	Thr
145							150							155	
Gly	Glu	Ala	Cys	Arg											160
															165

<210> 191

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 191

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1															15	

aga	tac	ctg	ctc	gaa	gca	gag	gct	gaa	aat	atc	acc	aca	ggc	tgt	96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Gly	Cys	
20							25							30	

gca	gaa	cat	tgc	tca	ctg	aac	gag	act	att	act	gta	ccg	gat	gca	aaa	144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Thr	Ile	Thr	Val	Pro	Asp	Ala	Lys	
35							40							45		

gtc	aac	att	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcf	gtg	192
Val	Asn	Ile	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
50							55							60		

gaa	gtt	tgg	cag	ggg	ctt	gcc	ctg	ttg	cag	gca	gtc	ctg	cgf	ggt	240
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly
65							70							80	

caa	act	tta	ctg	gta	att	tcc	agt	cag	cct	tgg	gaa	cca	tta	cag	ttg	288
Gln	Thr	Leu	Leu	Val	Ile	Ser	Ser	Gln	Pro	Trp	Glu	Pro	Leu	Gln	Leu	
85							90							95		

cac	gtg	gat	aag	gcf	gtt	tct	ggc	ctg	cgf	agc	ctt	acc	acg	ctg	ctc	336
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Leu	Leu		
100							105							110		

cgt	gca	ctg	ggt	gcc	caa	aaa	gaa	gct	atc	tcg	ccg	cct	gac	gcf	gcc	384
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
115							120							125		

tca	gca	gcf	ccg	tta	cgc	act	att	aca	gcc	gat	acc	ttc	cgt	aaa	ctg	432
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Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				

<210> 192
<211> 165
<212> PRT
<213> Homo sapiens

<400> 192			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Thr Ile Thr Val Pro Asp Ala Lys			
35	40	45	
Val Asn Ile Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 193
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 193			
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa			48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys	
20 25 30	
gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys	
35 40 45	
gtc aac ttt tat gcc cgg aaa cga atg gaa gtt gga caa cag gcg gtg	192
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val	
50 55 60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly	
65 70 75 80	
caa act tta ctg gta act tcc agt cag cct tgg gaa cca tta cag ttg	288
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	
85 90 95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	
100 105 110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala	
115 120 125	
tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu	
130 135 140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg	480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr	
145 150 155 160	
ggt gag gct tgt cgc tga	498
Gly Glu Ala Cys Arg *	
165	

<210> 194
<211> 165
<212> PRT
<213> Homo sapiens

<400> 194
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val

50	55	60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser	Glu Ala Val Leu Arg Gly	
65	70	75
Gln Thr Leu Leu Val Thr Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu		80
85	90	95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu		
100	105	110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala		
115	120	125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu		
130	135	140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr		
145	150	155
Gly Glu Ala Cys Arg		160
	165	

<210> 195

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 195

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa	48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu	
1	5
	10
	15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt	96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys	
20	25
	30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa	144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys	
35	40
	45

gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg	192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val	
50	55
	60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt	240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly	
65	70
	75
	80

caa act tta ctg gta agt tcc agt cag cct tgg gaa cca tta cag ttg	288
Gln Thr Leu Leu Val Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu	
85	90
	95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc	336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu	
100	105
	110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc	384		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg cca tta cgc act att aca gcc gat acc ttc cgt aaa ctg	432		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg	480		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggg gag gct tgg cgc tga	498		
Gly Glu Ala Cys Arg *			
165			

<210> 196

<211> 165

<212> PRT

<213> Homo sapiens

<400> 196

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Ser Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 197

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(498)

<400> 197
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 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

 aga tac ctg ttc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
 Arg Tyr Leu Phe Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
 20 25 30

 gca gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45

 gtc aac ttt tat gcc ccg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60

 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg ccg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80

 caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

 cac gtg gat aag tcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
 His Val Asp Lys Ser Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110

 cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125

 tca gca gcg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140

 ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg 480
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
 145 150 155 160

 ggt gag gct tgt cgc tga 498
 Gly Glu Ala Cys Arg *
 165

<210> 198
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 198
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15

Arg Tyr Leu Phe Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
 20 25 30
 Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 Val Asn Phe Tyr Ala Arg Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95
 His Val Asp Lys Ser Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 199
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(498)

<400> 199
 atg gat atc gcc ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
 Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
 1 5 10 15
 aga tac ctg ctc gaa gcg aaa gag gct gaa att atc acc aca ggc tgt 96
 Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys
 20 25 30
 gca gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
 Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
 35 40 45
 gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
 Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
 50 55 60
 gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
 Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
 65 70 75 80
 caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
 Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
 85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 200
<211> 165
<212> PRT
<213> Homo sapiens

<400> 200			
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu			
1	5	10	15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys			
20	25	30	
Ala Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
Gly Glu Ala Cys Arg			
165			

<210> 201
<211> 498
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 201

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gga gaa tat tgc tca ctg aac gag aat att act gta ccg gat acg aaa 144
Gly Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45

gtc aac gta tat gcc tgg gaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Val Tyr Ala Trp Glu Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160

ggt gag gct tgt cgc tga 498
Gly Glu Ala Cys Arg *
165

<210> 202

<211> 165

<212> PRT

<213> Homo sapiens

<400> 202

Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Gly Glu Tyr Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Val Tyr Ala Trp Glu Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 203

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) ... (498)

<400> 203

atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tta ctg aac gag att att act gta ccg gat tcg aaa 144
Ala Glu His Cys Leu Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac ttg tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cggt ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly

65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa ttt tat acg				480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 204				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 204				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Leu Leu Asn Glu Ile Ile Thr Val Pro Asp Ser Lys				
35	40	45		
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Phe Tyr Thr				
145	150	155	160	
Gly Glu Ala Cys Arg				
165				

<210> 205
 <211> 498
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) ... (498)

<400> 205

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gaa	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	
1		5						10					15			

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96

Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys	
20							25						30			

gca gaa cat tgc tca ctg aac gag agt att act gta ccg gat acg aaa 144

Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Ser	Ile	Thr	Val	Pro	Asp	Thr	Lys	
35							40					45				

gtc aac cta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192

Val	Asn	Leu	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val	
50							55					60				

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240

Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	
65							70					75		80		

caa act tta ctg gta agt tcc agt cag tct agg gaa caa tta cag ttg 288

Gln	Thr	Leu	Leu	Val	Ser	Ser	Ser	Gln	Ser	Arg	Glu	Gln	Leu	Gln	Leu	
85							90					95				

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336

His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Leu	Leu		
100							105					110				

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384

Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	
115							120					125				

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432

Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu	
130							135					140				

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa gtt tat acg 480

Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Val	Tyr	Thr	
145							150					155		160		

ggt gag gct tgt cgc tga 498

Gly	Glu	Ala	Cys	Arg	*											
						165										

<210> 206
<211> 165
<212> PRT
<213> Homo sapiens

<400> 206

Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu
1															15
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Asn	Ile	Thr	Thr	Gly	Cys
		20					25							30	
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Ser	Ile	Thr	Val	Pro	Asp	Thr	Lys
		35				40							45		
Val	Asn	Leu	Tyr	Ala	Trp	Lys	Arg	Met	Glu	Val	Gly	Gln	Gln	Ala	Val
		50				55					60				
Glu	Val	Trp	Gln	Gly	Leu	Ala	Leu	Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly
		65				70				75			80		
Gln	Thr	Leu	Leu	Val	Ser	Ser	Ser	Gln	Ser	Arg	Glu	Gln	Leu	Gln	Leu
					85				90			95			
His	Val	Asp	Lys	Ala	Val	Ser	Gly	Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu
					100				105			110			
Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu	Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala
					115				120			125			
Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile	Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu
					130			135			140				
Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu	Arg	Gly	Lys	Leu	Lys	Val	Tyr	Thr
					145			150			155			160	
Gly	Glu	Ala	Cys	Arg											
					165										

<210> 207
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 207

atg	gat	atc	gcc	ccg	ccc	cgt	ctg	att	tgc	gac	agc	agg	gtg	cta	gta	48
Met	Asp	Ile	Ala	Pro	Pro	Arg	Leu	Ile	Cys	Asp	Ser	Arg	Val	Leu	Val	
1															15	
aga	tac	ctg	ctc	gaa	gca	aaa	gag	aat	att	atc	acc	aca	ggc	tgt		96
Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu	Ala	Glu	Ile	Ile	Thr	Thr	Gly	Cys	
								20			25			30		
gca	gaa	cat	tgc	tca	ctg	aac	gag	aat	att	act	gta	ccg	gat	acg	aaa	144
Ala	Glu	His	Cys	Ser	Leu	Asn	Glu	Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	
						35							45			
gtc	aac	ttt	tat	gcc	tgg	aaa	cga	atg	gaa	gtt	gga	caa	cag	gcg	gtg	192

Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cg ggt				240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
caa act tta ctg gta aat tcc agt cag cct tgg gaa cca tta cag ttg				288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc				336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc				384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg				432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				
130	135	140		
ttt cgc gtc tac gcc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg				480
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr				
145	150	155	160	
ggt gag gct tgt cgc tga				498
Gly Glu Ala Cys Arg *				
165				
<210> 208				
<211> 165				
<212> PRT				
<213> Homo sapiens				
<400> 208				
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Val				
1	5	10	15	
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ile Ile Thr Thr Gly Cys				
20	25	30		
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys				
35	40	45		
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val				
50	55	60		
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly				
65	70	75	80	
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu				
85	90	95		
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu				
100	105	110		
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala				
115	120	125		
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu				

130	135	140
Phe Arg Val Tyr Ala Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr		
145	150	155
Gly Glu Ala Cys Arg		
165		

<210> 209
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 209
atg gat atc gcc ccg ccc cgt ctg att tgc gac agc agg gtg cta gaa 48
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa aat atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Asn Ile Thr Thr Gly Cys
20 25 30

gca gaa gat tgc tca ctg aac gag agt att act gta ccg gat tcg aaa 144
Ala Glu Asp Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys
35 40 45

gtc aac tta tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg 192
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60

gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt 240
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80

caa act tta ctg gta aat tcc agt cag cct ggg gaa caa tta cag ttg 288
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Gln Leu Gln Leu
85 90 95

cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc 336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110

cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc 384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125

tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg 432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140

ttt cgc gtc tac tcc aac ttc ttg cgt ggc aaa ctg aaa att tat acg 480
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr

145

150

155

160

ggt gag gct tgt cgc tga
Gly Glu Ala Cys Arg *
165

498

<210> 210
<211> 165
<212> PRT
<213> Homo sapiens

<400> 210
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys
20 25 30
Ala Glu Asp Cys Ser Leu Asn Glu Ser Ile Thr Val Pro Asp Ser Lys
35 40 45
Val Asn Leu Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Asn Ser Ser Gln Pro Gly Glu Gln Leu Gln Leu
85 90 95
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
100 105 110
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
115 120 125
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
130 135 140
Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Ile Tyr Thr
145 150 155 160
Gly Glu Ala Cys Arg
165

<210> 211
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(498)

<400> 211
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Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15

aga tac ctg ctc gaa gcg aaa gag gct gaa agt atc acc aca ggc tgt 96
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30

gca gaa cat tgc tca ctg aac gag aat att act gta ccg gat acg aaa			144
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys			
35	40	45	
gtc aac ttt tat gcc tgg aaa cga atg gaa gtt gga caa cag gcg gtg			192
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val			
50	55	60	
gaa gtt tgg cag ggg ctt gcc ctg ttg tcg gag gca gtc ctg cgg ggt			240
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly			
65	70	75	80
caa act tta ctg gta att tcc agt cag cct tgg gaa cca tta cag ttg			288
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu			
85	90	95	
cac gtg gat aag gcg gtt tct ggc ctg cgc agc ctt acc acg ctg ctc			336
His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu			
100	105	110	
cgt gca ctg ggt gcc caa aaa gaa gct atc tcg ccg cct gac gcg gcc			384
Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala			
115	120	125	
tca gca gcg ccg tta cgc act att aca gcc gat acc ttc cgt aaa ctg			432
Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu			
130	135	140	
ttt cgc gtc tac ccc aac ttc ttg cgt ggc aaa ctg aaa ctt tat acg			480
Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr			
145	150	155	160
ggt gag gct tgt cgc tga			498
Gly Glu Ala Cys Arg *			
165			

<210> 212
<211> 165
<212> PRT
<213> Homo sapiens

<400> 212
Met Asp Ile Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu
1 5 10 15
Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Ser Ile Thr Thr Gly Cys
20 25 30
Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys
35 40 45
Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val
50 55 60
Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly
65 70 75 80
Gln Thr Leu Leu Val Ile Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu
85 90 95

His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu
 100 105 110
 Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala
 115 120 125
 Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu
 130 135 140
 Phe Arg Val Tyr Pro Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr
 145 150 155 160
 Gly Glu Ala Cys Arg
 165

<210> 213
 <211> 1342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (263) ... (763)

<400> 213
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 ccgcctctc ctccaggccc gtggggctgg ccctgcaccc cgagcttcc cggatgagg 120
 gccccccgtg tggtcacccg gcgcgcacca ggtcgctgag ggacccccc caggcgcgga 180
 gatgggggttg cacgaatgtc ctgcctggct gtggcttctc ctgtccctgc tgtcgctccc 240
 tctgggcctc ccagtcctgg gc gcc cca cca cgc ctc atc tgt gac agc cga 292
 Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg
 1 5 10

gtc ctg gag agg tac ctc ttg gag gcc aag gag gcc gag aat atc acg 340
 Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr
 15 20 25

acg ggc tgt gct gaa cac tgc agc ttg aat gag aat atc act gtc cca 388
 Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro
 30 35 40

gac acc aaa gtt aat ttc tat gcc tgg aag agg atg gag gtc ggg cag 436
 Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg Met Glu Val Gly Gln
 45 50 55

cag gcc gta gaa gtc tgg cag ggc ctg gcc ctg ctg tcg gaa gct gtc 484
 Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu Leu Ser Glu Ala Val
 60 65 70

ctg cgg ggc cag gcc ctg ttg gtc aac tct tcc cag ccg tgg gag ccc 532
 Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro
 75 80 85 90

ctg cag ctg cat gtg gat aaa gcc gtc agt ggc ctt cgc agc ctc acc 580
 Leu Gln Leu His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr
 95 100 105

act ctg ctt cgg gct ctg cga gcc cag aag gaa gcc atc tcc cct cca 628

Thr Leu Leu Arg Ala Leu Arg Ala Gln Lys Glu Ala Ile Ser Pro Pro
 110 115 120

gat gcg gcc tca gct gct cca ctc cga aca atc act gct gac act ttc 676
 Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe
 125 130 135

cgc aaa ctc ttc cga gtc tac tcc aat ttc ctc cgg gga aag ctg aag 724
 Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys
 140 145 150

ctg tac aca ggg gag gcc tgc agg aca ggg gac aga tga ccaggtgtgt 773
 Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp Arg *
 155 160 165

ccacctgggc atatccacca cctccctcac caacattgct tgcacccac cctcccccgc 833
 cactcctgaa ccccgctcgag gggctctcgat ctcagcgcca gcctgtccca tggacactcc 893
 atgcgcgcgat atgacatctc agggggccaga ggaactgtcc agagagcaac tctgagatct 953
 aaggatgtca cagggccaaac ttgagggccc agagcaggaa gcattcagag agcagctta 1013
 aactcaggga cagagccatg ctggaaagac gcctgagctc actcggcacc ctgcaaaatt 1073
 tggatgccagg acacgctttg gaggcgattt acctgttttgcacccatcca tcagggacag 1133
 gatgacctgg agaacttagg tggcaagctg tgacttctcc aggtctcacc ggcattggca 1193
 ctcccttgggat ggcaagagcc cccttgacac cgggtggtg ggaaccatga agacaggatg 1253
 ggggctggcc tctggctctc atggggctca agttttgtgt attcttcaac ctcattgaca 1313
 agaactgaaa ccaccaaaaa aaaaaaaaaa 1342

<210> 214
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 214
 Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu
 1 5 10 15
 Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His
 20 25 30
 Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe
 35 40 45
 Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val Glu Val Trp
 50 55 60
 Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu
 65 70 75 80
 Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp
 85 90 95
 Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu
 100 105 110
 Arg Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala
 115 120 125
 Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val
 130 135 140
 Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala
 145 150 155 160
 Cys Arg Thr Gly Asp Arg
 165

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<210> 215
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 215
caggaattct gtttgaaac tgtc                                24

<210> 216
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 216
actctcataac catggaaagct tgca                                24

<210> 217
<211> 567
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(567)

<400> 217
atg ggc gtg cac gag tgc ccc gcc tgg ctg tgg ctg ctg agc ctg      48
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu
 1           5           10           15

ctg agc ctg ccc ctg ggc ccc gtg ctg ggc gcc ccc ccc cgg ctg      96
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
 20          25          30

atc tgc gac agc cgg gtg ctg gag cgg tac ctg ctg gag gcc aag gag      144
Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu
 35          40          45

gcc gag acc atc acc acc ggc tgc gtg gag gac tgc agc ctg aac gag      192
Ala Glu Thr Ile Thr Gly Cys Val Glu Asp Cys Ser Leu Asn Glu
 50          55          60

aac atc acc gtg ccc gac acc aag gtg aac ttc tac gcc cgg aag cgg      240
Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Arg Lys Arg
 65          70          75          80

atg gag gtg ggc cag cag gcc gtg gag atc tgg cag ggc ctg gcc ctg      288
Met Glu Val Gly Gln Gln Ala Val Glu Ile Trp Gln Gly Leu Ala Leu

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85	90	95	
ctg agc gag gcc gtg ctg cgg ggc cag acc ctg ctg gtg atc agc agc Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Ile Ser Ser 100	105	110	336
cag ccc tgg gag ccc ctg cag ctg cac gtg gac aag gcc gtg agc ggc Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 115	120	125	384
ctg cgg agc ctg acc acc ctg ctg cgg gcc ctg ggc gcc cag aag gag Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130	135	140	432
gcc atc agc ccc ccc gac gcc gcc agc gcc ccc ctg cgg acc atc Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145	150	155	480
acc gcc gac acc ttc cgg aag ctg ttc cgg gtg tac agc aac ttc ctg Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165	170	175	528
cgg ggc aag ctg aag ctg tac acc ggc gag gcc tgc cgg Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg 180	185		567
<p><210> 218</p> <p><211> 189</p> <p><212> PRT</p> <p><213> Homo sapiens</p>			
<p><400> 218</p> <p>Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu 1 5 10 15</p> <p>Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu 20 25 30</p> <p>Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40 45</p> <p>Ala Glu Thr Ile Thr Thr Gly Cys Val Glu Asp Cys Ser Leu Asn Glu 50 55 60</p> <p>Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Arg Lys Arg 65 70 75 80</p> <p>Met Glu Val Gly Gln Gln Ala Val Glu Ile Trp Gln Gly Leu Ala Leu 85 90 95</p> <p>Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Ile Ser Ser 100 105 110</p> <p>Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 115 120 125</p> <p>Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140</p> <p>Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160</p> <p>Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175</p>			

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg
 180 185

<210> 219
 <211> 567
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(567)

<400> 219

atg	ggc	gtg	cac	gag	tgc	ccc	gcc	tgg	ctg	tgg	ctg	ctg	agc	ctg		48
Met	Gly	Val	His	Glu	Cys	Pro	Ala	Trp	Leu	Trp	Leu	Leu	Ser	Leu		
1		5							10					15		

ctg	agc	ctg	ccc	ctg	ggc	ctg	ccc	gtg	ctg	ggc	gcc	ccc	ccc	cgg	ctg		96
Leu	Ser	Leu	Pro	Leu	Gly	Leu	Pro	Val	Leu	Gly	Ala	Pro	Pro	Arg	Leu		
20									25					30			

atc	tgc	gac	agc	cgg	gtg	ctg	gag	cg	tac	ctg	ctg	gag	gcc	aag	gag		144
Ile	Cys	Asp	Ser	Arg	Val	Leu	Glu	Arg	Tyr	Leu	Leu	Glu	Ala	Lys	Glu		
35									40					45			

gcc	gag	acc	atc	acc	acc	ggc	tgc	gtg	gag	gac	tgc	agc	ctg	aac	gag		192
Ala	Glu	Thr	Ile	Thr	Thr	Gly	Cys	Val	Glu	Asp	Cys	Ser	Leu	Asn	Glu		
50									55					60			

aac	atc	acc	gtg	ccc	gac	acc	aag	gtg	aac	ttc	tac	gcc	cg	aag	cg		240
Asn	Ile	Thr	Val	Pro	Asp	Thr	Lys	Val	Asn	Phe	Tyr	Ala	Arg	Lys	Arg		
65									70					75			

atg	gag	gtg	ggc	cag	cag	gcc	gtg	gag	atc	tgg	cag	ggc	ctg	gcc	ctg		288
Met	Glu	Val	Gly	Gln	Gln	Ala	Val	Glu	Ile	Trp	Gln	Gly	Leu	Ala	Leu		
85									90					95			

ctg	agc	gag	gcc	gtg	ctg	cg	ggc	cag	acc	ctg	ctg	gtg	atc	agc	agc		336
Leu	Ser	Glu	Ala	Val	Leu	Arg	Gly	Gln	Thr	Leu	Leu	Val	Ile	Ser	Ser		
100									105					110			

cag	gtg	aac	gag	acc	ctg	cag	ctg	cac	gtg	gac	aag	gcc	gtg	agc	ggc		384
Gln	Val	Asn	Glu	Thr	Leu	Gln	Leu	His	Val	Asp	Lys	Ala	Val	Ser	Gly		
115									120					125			

ctg	cg	agc	ctg	acc	acc	ctg	ctg	cg	ggc	ctg	ggc	gcc	cag	aag	gag		432
Leu	Arg	Ser	Leu	Thr	Thr	Leu	Leu	Arg	Ala	Leu	Gly	Ala	Gln	Lys	Glu		
130									135					140			

gcc	atc	agc	ccc	ccc	gac	ggc	agc	ggc	ggc	ccc	ctg	cg	acc	atc		480	
Ala	Ile	Ser	Pro	Pro	Asp	Ala	Ala	Ser	Ala	Ala	Pro	Leu	Arg	Thr	Ile		
145									150					155			

acc	gcc	gac	acc	ttc	cg	aag	ctg	ttc	cg	gtg	tac	agc	aac	ttc	ctg		528
Thr	Ala	Asp	Thr	Phe	Arg	Lys	Leu	Phe	Arg	Val	Tyr	Ser	Asn	Phe	Leu		

165

170

175

cgg ggc aag ctg aag ctg tac acc ggc gag gcc tgc cg
 Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg
 180 185

567

<210> 220
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 220

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu
 1 5 10 15
 Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
 20 25 30
 Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu
 35 40 45
 Ala Glu Thr Ile Thr Thr Gly Cys Val Glu Asp Cys Ser Leu Asn Glu
 50 55 60
 Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Arg Lys Arg
 65 70 75 80
 Met Glu Val Gly Gln Gln Ala Val Glu Ile Trp Gln Gly Leu Ala Leu
 85 90 95
 Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Ile Ser Ser
 100 105 110
 Gln Val Asn Glu Thr Leu Gln Leu His Val Asp Lys Ala Val Ser Gly
 115 120 125
 Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu
 130 135 140
 Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile
 145 150 155 160
 Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu
 165 170 175
 Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg
 180 185

<210> 221
 <211> 567
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)...(567)

<400> 221

atg ggc gtg cac gag tgc ccc gcc tgg ctg tgg ctg ctg ctg agc ctg
 Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu
 1 5 10 15

ctg agc ctg ccc ctg ggc ccc gtg ctg ggc gcc ccc ccc cgg ctg
 Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
 20 25 30

48

96

atc tgc gac agc cgg gtg ctg gag cgg tac ctg ctg gag gcc aag gag Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Ala Lys Glu 35 40 45	144
gcc gag agc atc acc acc ggc tgc gcc gag cac tgc agc ctg aac gag Ala Glu Ser Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 50 55 60	192
aac atc acc gtg ccc gac agc aag gtg aac atg tac gcc tgg aag cgg Asn Ile Thr Val Pro Asp Ser Lys Val Asn Met Tyr Ala Trp Lys Arg 65 70 75 80	240
atg gag gtg ggc cag cag gcc gtg gag gtg tgg cag ggc ctg gcc ctg Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95	288
ctg agc gag gcc gtg ctg cgg ggc cag acc ctg ctg gtg aac agc agc Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Asn Ser Ser 100 105 110	336
cag ccc tgg gag ccc ctg cag ctg cac gtg gac aag gcc gtg agc ggc Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 115 120 125	384
ctg cgg agc ctg acc acc ctg ctg cgg gcc ctg ggc gcc cag aag gag Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140	432
gcc atc agc ccc ccc gac gcc gac gcc agc gac gcc ccc ctg cgg acc atc Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160	480
acc gcc gac acc ttc cgg aag ctg ttc cgg gtg tac agc aac ttc ctg Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175	528
cgg ggc aag ctg aag ctg tac acc ggc gag gcc tgc cgg Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg 180 185	567

<210> 222
<211> 189
<212> PRT
<213> Homo sapiens

<400> 222
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu
1 5 10 15
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
20 25 30
Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu
35 40 45
Ala Glu Ser Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu

50	55	60	
Asn Ile Thr Val Pro Asp Ser Lys Val Asn Met Tyr Ala Trp Lys Arg			
65	70	75	80
Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu			
85	90	95	
Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Asn Ser Ser			
100	105	110	
Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly			
115	120	125	
Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu			
130	135	140	
Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile			
145	150	155	160
Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu			
165	170	175	
Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg			
180	185		

<210> 223

<211> 567

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(567)

<400> 223

atg ggc gtg cac gag tgc ccc gcc tgg ctg tgg ctg ctg ctg agc ctg	48		
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Ser Leu			
1	5	10	15

ctg agc ctg ccc ctg ggc ccc gtg ctg ggc gcc ccc ccc cggtg	96		
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu			
20	25	30	

atc tgc gac agc cgg gtg ctg gag cgg tac ctg ctg gag gcc aag gag	144		
Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu			
35	40	45	

gcc gag agc atc acc acc ggc tgc gcc gag cac tgc agc ctg aac gag	192		
Ala Glu Ser Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu			
50	55	60	

aac atc acc gtg ccc gac agc aag gtg aac atg tac gcc tgg aag cgg	240		
Asn Ile Thr Val Pro Asp Ser Lys Val Asn Met Tyr Ala Trp Lys Arg			
65	70	75	80

atg gag gtg ggc cag cag gcc gtg gag gtg tgg cag ggc ctg gcc ctg	288		
Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu			
85	90	95	

ctg agc gag gcc gtg ctg cgg ggc cag acc ctg ctg gtg aac agc agc	336		
Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Asn Ser Ser			
100	105	110	

cag gtg aac gag acc ctg cag ctg cac gtg gac aag gcc gtg agc ggc	384
Gln Val Asn Glu Thr Leu Gln Leu His Val Asp Lys Ala Val Ser Gly	
115 120 125	
ctg cgg agc ctg acc acc ctg ctg cgg gcc ctg ggc gcc cag aag gag	432
Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu	
130 135 140	
gcc atc agc ccc ccc gac gcc gac gcc gac ccc ctg cgg acc atc	480
Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile	
145 150 155 160	
acc gcc gac acc ttc cgg aag ctg ttc cgg gtg tac agc aac ttc ctg	528
Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu	
165 170 175	
cgg ggc aag ctg aag ctg tac acc ggc gag gcc tgc cgg	567
Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg	
180 185	
<210> 224	
<211> 189	
<212> PRT	
<213> Homo sapiens	
<400> 224	
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu	
1 5 10 15	
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu	
20 25 30	
Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu	
35 40 45	
Ala Glu Ser Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu	
50 55 60	
Asn Ile Thr Val Pro Asp Ser Lys Val Asn Met Tyr Ala Trp Lys Arg	
65 70 75 80	
Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu	
85 90 95	
Leu Ser Glu Ala Val Leu Arg Gly Gln Thr Leu Leu Val Asn Ser Ser	
100 105 110	
Gln Val Asn Glu Thr Leu Gln Leu His Val Asp Lys Ala Val Ser Gly	
115 120 125	
Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu	
130 135 140	
Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile	
145 150 155 160	
Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu	
165 170 175	
Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg	
180 185	
<210> 225	
<211> 81	

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(81)

<400> 225
atg ggc gtg cac gag tgc ccc gcc tgg ctg tgg ctg ctg ctg agc ctg
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu
1 5 10 15

ctg agc ctg ccc ctg ggc ccc gtg ctg ggc
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly
20 25

48

81

<210> 226
<211> 27
<212> PRT
<213> Homo sapiens

<400> 226
Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu
1 5 10 15
Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly
20 25